APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/621,687	07/21/2000	Graham Hamilton	06502.0194	4863

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EXAMINER
FLEURANTIN, JEAN B

ART UNIT	PAPER NUMBER
2172	

DATE MAILED: 09/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-40* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

   If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____ .

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
       application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

   a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)   4)☐ Interview Summary (PTO-413) Paper No(s). _____ .
2)☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)   5)☐ Notice of Informal Patent Application (PTO-152)
3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .   6)☐ Other: .

DETAILED ACTION

1.   Claims 1-40 are presented for examination.

Drawings

2.   The drawings filed on 07/21/00 are approved by the Draftsperson under 37 CFR1.84 or

1.152 as indicated in the "Notice of Draftperson's Patent Drawing Review," PTO-948.

Claim Rejections - 35 U.S.C. § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3-16, 18-23, 26-27, 29-37 and 40 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Hembry (US Pat. No. 5,890,160) ("Hembry").

As per claims 1 and 19, Hembry substantially teaches a computer readable medium,

operative to serve as a database interface, having instructions which when executed by a

computer system, as claimed comprise the following steps of receiving a database call at a

computer system (thus, an OO applications program may access the data stored in a relational

table by making function calls to the database server of the RDBMS in SQL see figure 2, for

example a class might be defined to have behaviors B that: generate appropriate SQL statements;

package the statements and forward them to the database server, receive the results, process the

results and so on, when such a program is executed client objects C.sub.-- Obj of the foregoing

class would be constructed as necessary, and their behaviors B invoked in accordance with the

particular task; which is equivalent to receiving a database call at a computer system) (see col. 6,

lines 16-26);

executing the general computer language programming call to invoke functions of the

computer application that correspond to functions specified by the database call (thus, the

applications programs may send messages to the database server in a predefined format, such

formatted messages may be referred to as database calls, a database call invokes one or more

corresponding functions of the database management system usually with respect to a particular

database; which is equivalent to executing the general computer language programming call to

invoke functions of the computer application that correspond to functions specified by the

database call) (see col. 2, lines 40-49). But, Hembry does not explicitly indicate steps of

mapping the database call to a general computer language programming call of a computer

application. However, Hembry implicitly indicates the steps of an application accesses a cell of a

relational table and the cell contains a nontraditional datatype, an EXOB class instance of a

matching type is instantiated in the application to represent that data, the EXOB instance will

provide a public interface for adding, retrieving, updating and deleting its data to and from the

corresponding table location for accessing the object's attributes and for manipulating the data in

various type-dependent ways; which is readable as mapping the database call to a general

computer language programming call of a computer application (see col. 9, lines 19-27). Thus, it

would have been obvious to a person of ordinary skill in the art at the time the invention was

made to modify the teachings of Hembry with the steps of mapping the database call to a general

computer language programming call of a computer application. This modification would allow

the teachings of Hembry to improve the accuracy of the database access bridge system and

process, and provide a set computer programs that facilitates the creation management and

manipulation of databases (see col. 2, lines 22-24).

As per claims 3, 7, 23, 27 and 36, Hembry substantially teaches the medium as claimed

wherein the database call is a Structured Query Logic (SQL) call (thus, client objects may be

simplified because the OOAO has the responsibility for intimate knowledge of the database

schema of the precise syntax of SQL calls, which is readable as wherein the database call is a

Structured Query Logic (SQL) call) (see col. 7, lines 11-15); and see col. 3, lines 32-36, Hembry

further teaches structure for function RDBMS calls is generally referred to as structured query

language.

As per claims 4 and 33, Hembry substantially teaches the medium as claimed wherein the

computer system is an application server (thus, applications programs communicate with an

automated database manager, the database manager may be referred to as a database server,

which is equivalent to application server) (see col. 2, lines 40-42).

As per claims 5 and 20, the limitations of claims 5 and 20 are rejected in the analysis of

claim 1, and these claims are rejected on that basis.

As per claim 6, Hembry substantially teaches the medium as claimed further comprises

generating a database call to a database in response to executing the general computer language

programming call (thus, generate appropriate SQL statements; package the statements and forward them to the database server receive the results; process the results, and so on when such a program is executed client objects C.sub.-- Obj of the foregoing class would be constructed as necessary and their behaviors B invoked in accordance with the particular task; which is readable as generating a database call to a database in response to executing the general computer language programming call) (see col. 6, lines 20-26).

As per claim 8, Hembry substantially teaches the medium as claimed further comprises validating data operation prior to issuing the SQL call (see col. 3, lines 32-36).

As per claims 9 and 29, in addition to the discussion in claim 1, Hembry further teaches steps of analyzing the components to determine the correspondence between the database elements and the elements of the components that access the database elements (thus, in functioning as an intermediary between applications programs and an relational database management systems, a data access facility may provide one or more classes from which one or more intermediate objects are constructed, objects of an applications program which may be referred to as client objects, may pass messages to the objects of the data access facility; which is readable as analyzing the components to determine the correspondence between the database elements and the elements of the components that access the database elements) (see col. 7, lines 1-6).

As per claims 10, 16, 22 and 40, the limitations of claims 10, 16, 22 and 40 are rejected in the analysis of claim 1, and these claims are rejected on that basis.

As per claims 11 and 30, Hembry substantially teaches the medium as claimed wherein

the computer programming language is object oriented and wherein said components are objects

(thus, when object oriented applications access rows of relational tables the data value of the cell

is retrieved into an object, the object makes available the value of the nontraditional datatype;

which is readable as wherein said components are objects) (see col. 1, lines 26-33).

As per claims 12, 31 and 34, the limitations of claims 12, 31 and 34 are rejected in the

analysis of claim 1, and these claims are rejected on that basis.

As per claims 13-15, Hembry substantially teaches the medium as claimed wherein the

methods are identified by searching for a method of the form <command prefix>XXX (thus,

client objects may be simplified because the OOAO has the responsibility for intimate

knowledge of the database schema of the precise syntax of SQL calls; which is readable as

identified by searching for a method of the form) (see col. 7, lines 11-15).

As per claim 18, Hembry substantially teaches the medium as claimed wherein the

database call received at the computer system is a first SQL database call and the column layout

specified in the first SQL database call is different than a second SQL database call generated to

a SQL database in response to executing the general computer language programming call (thus,

an OO applications program may access the data stored in a relational table by making function

calls to the database server of the RDBMS in SQL see figure 2, for example a class might be

defined to have behaviors B that: generate appropriate SQL statements; package the statements

and forward them to the database server, receive the results, process the results and so on, when

such a program is executed client objects C.sub.-- Obj of the foregoing class would be

constructed as necessary, and their behaviors B invoked in accordance with the particular task;

which is readable as wherein the database call received at the computer system is a first SQL

database call and the column layout specified in the first SQL database call is different than a

second SQL database call generated to a SQL database in response to executing the general

computer language programming call) (see col. 6, lines 16-26).

As per claim 21, Hembry substantially teaches the medium as claimed wherein said

computer application is in a different computer programming language than said general

computer programming language (thus, during development and design of applications programs,

applications programers may adhere to a programming methodology a programming

methodology is a set of principles by which analysis is performed and by which design decision

are made; which is readable as computer application is in a different computer programming

language than said general computer programming language) (see col. 4, lines 43-47).

As per claims 26 and 32, in addition to the discussion in claim 1, Hembry teaches step of

accessing said database using said selected one (thus, applications programs access the data of

relational tables by making calls to a database server, used in this sense, the term 'applications

programs' may refer to several separate programs only one program a module of a program or

even a particular task of a module; which is equivalent to accessing said database using said

selected one) (see col. 4, lines 35-39).

As per claim 35, the limitations of claims 35 are rejected in the analysis of claim 26, and

these claims are rejected on that basis.

As per claim 37, Hembry substantially teaches the system as claimed wherein said first

and second database calls specify different column names (thus, when object oriented

applications access rows of relational tables, the data value of the cell is retrieved into an object,

the object makes available the value of the nontraditional datatype but the manipulation of the

value via behaviors or methods of the object is not accommodated; which is readable as second

database calls specify different column names) (see col. 1, lines 27-31).

4.   Claims 2, 17, 24-25, 28 and 38-39 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Hembry (US Pat. No. 5,890,160) in view of Moore et al. (US Pat. No.

6,338,068) ("Hembry"), ("Moore").

As per claims 2, 17, 24-25, 28 and 38-39, Hembry teaches all the subject matter of the

claimed invention with the exception of an exact computer language programming call is an

Enterprise Java Bean (EJB) call; and computer application is Visual Basic computer application.

However, Moore teaches steps of Java Application (see col. 5, lines 11-53). Thus, it would have

been obvious to a person of ordinary skill in the art at the time the invention was made to modify

the teachings of Hembry and Moore with the steps of computer language programming call is an

Enterprise Java Bean (EJB) call; and computer application is Visual Basic computer application.

This modification would allow the teachings of Hembry and Moore to provide a method to

demonstrate Java-based applications that can demonstrate network connectivity using a browser

with out the requirement of performing database queries when demonstrating database driven
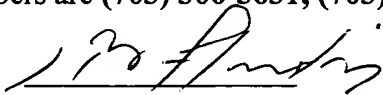
applications (see col. 3, lines 50-53).

5.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure. Nykiel et al. US Pat. No. 5,812,849 relates to software development.

Conclusion

6.   Any inquiry concerning this communication from examiner should be directed to Jean

Bolte Fleurantin at (703) 308-6718. The examiner can normally be reached on Monday through

Friday from 7:30 A.M. to 6:00 P.M.

If any attempt to reach the examiner by telephone is unsuccessful, the examiner's

supervisor, Mrs. KIM VU can be reached at **(703) 305-8449.** The FAX phone numbers for the

Group 2100 Customer Service Center are: *After Final* **(703) 746-7238,** *Official* **(703) 746-7239,**

and *Non-Official (703) 746-7240*. NOTE: Documents transmitted by facsimile will be entered

as official documents on the file wrapper unless clearly marked *"DRAFT"*.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the Group 2100 Customer Service Center receptionist whose telephone

numbers are **(703) 306-5631, (703) 306-5632, (703) 306-5633.**

Jean Bolte Fleurantin

September 21, 2002

JBF/

SHAHID AL ALAM
PATENT EXAMINER